

REMARKS

Applicants would like to thank the Examiner for the careful consideration and substantive effort given this case. Applicants have amended claims 1, 3, 7, 12, 18, 19, 22, 23, 26, 27, 30, 31 and 34 to amend minor formatting errors. Such amendments are non-narrowing and are unrelated to patentability.

The Examiner has rejected claims 1-6, 18, 22, 26 and 34-36 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 5,491,517 to Kreitman et al. Applicants respectfully traverse the Examiner's rejection based on the following remarks.

Independent claim 1 incorporates features not disclosed in the prior art cited by the Examiner. In particular, Kreitman et al. does not teach or suggest "applying a transform function to visual content to be inserted into an image sequence...wherein the applying step...is performed without reference to any content of the image sequence," as required by claim 1.

The Examiner states that Kreitman et al. teaches the applying step performed without reference to any content of the image sequence. In particular, the Examiner references "transformer 64" and col. 7, line 64 to col. 8, line 6 as support for this proposition. However, the Examiner fails to consider that Kreitman et al. also requires "feature identification unit 60" and "perspective identification unit 62" as shown in FIGS. 5-8 and as discussed generally in col. 7, line 30 to col. 8, line 42. In particular, Kreitman et al. states the following

- "The system 14 typically comprises a feature identification unit 60 (FIG. 5) for identifying which features of the court 32 are present in each input video frame...." Kreitman et al., col. 7, ll. 30-32.
- "From the background mask 70, unit 60 (FIG. 5) extracts the features of the playing field. For tennis courts, the features of interest are the lines 38. The perspective identification unit 62 compares the extracted features with those of the model 50 and produces therefrom a transformation matrix [64]." Kreitman et al., col. 7, ll. 58-63.

In other words, Kreitman et al. teaches that content of the image sequence, such as features of the court 32, is identified, extracted, compared to the model, and used to produce a transformation matrix. *See FIG. 5.* As such, applying the transform function is performed with reference to content from the image sequence in Kreitman et al. because the transformation matrix is defined based on the image sequence content. This is in contrast with Applicants' invention in which the step of applying the transform function "is performed without reference to any content of the image sequence." For at least this reason, claim 1 is allowable over the prior art cited by the Examiner.

Similarly, claim 18 states that the step of applying the transform function "is performed without reference to any real-time content of the image sequence;" claims 22 and 26 state that the step of applying the transform function "is performed without reference to any content of the image sequence;" and claim 34 states that "the applying step is performed without reference to any content of the first image and the second image." For substantially the same reasons as set forth with respect to claim 1, claims 18, 22, 26 and 34 are likewise allowable over the prior art cited by the Examiner.

In addition, claim 26 incorporates additional features not disclosed in the prior art cited by the Examiner. In particular, Kreitman et al. does not teach or suggest that "the applying step and the blending step together result in insertion of the content into the image sequence such that the content appears at a target location as if it had been part of the original scene displayed by the image sequence, and such that the content is located on the moving object as the object moves in the scene," as required by claim 26. Kreitman et al. does not teach inserting content on a moving object. Kreitman et al. teaches inserting content at a fixed location. For at least this additional reason, claim 26 is further allowable over the prior art cited by the Examiner.

As claims 2-6 depend from and incorporate all of the limitations of allowable independent claim 1, claims 2-6 are likewise allowable over the prior art cited by the Examiner.

As claims 35 and 36 depend from and incorporate all of the limitations of allowable independent claim 34, claims 35 and 36 are likewise allowable over the prior art cited by the Examiner.

The Examiner has rejected claim 30 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Number 5,491,517 to Kreitman et al. in view of U.S. Patent Number 6,750,919 to Rosser.

Independent claim 30 incorporates features not disclosed in the prior art cited by the Examiner. In particular, Kreitman et al. does not teach or suggest “applying a transform function to dynamically changing visual content...wherein the applying step...is performed without reference to any real-time image content of the image sequence,” as required by claim 30.

The Examiner states that Kreitman et al. teaches the applying step performed without reference to any real-time image content of the image sequence. In particular, the Examiner references “transformer 64” and col. 7, line 64 to col. 8, line 6 as support for this proposition. However, the Examiner fails to consider that Kreitman et al. also requires “feature identification unit 60” and “perspective identification unit 62” as shown in FIGS. 5-8 and as discussed generally in col. 7, line 30 to col. 8, line 42. In particular, Kreitman et al. states the following

- “The system 14 typically comprises a feature identification unit 60 (FIG. 5) for identifying which features of the court 32 are present in each input video frame....” Kreitman et al., col. 7, ll. 30-32.
- “From the background mask 70, unit 60 (FIG. 5) extracts the features of the playing field. For tennis courts, the features of interest are the lines 38. The perspective identification unit 62 compares the extracted features with those of the model 50 and produces therefrom a transformation matrix [64].” Kreitman et al., col. 7, ll. 58-63.

In other words, Kreitman et al. teaches that real-time content of the image sequence, such as features of the court 32, is identified, extracted, compared to the model, and used to produce a

transformation matrix. *See FIG. 5.* As such, applying the transform function is performed with reference to content from the image sequence in Kreitman et al. because the transformation matrix is defined based on the image sequence content. This is in contrast with Applicants' invention in which the step of applying the transform function "is performed without reference to any content of the image sequence." Rosser does not overcome the deficiencies of Kreitman et al. For at least this reason, claim 30 is allowable over the prior art cited by the Examiner.

The Examiner has objected to claims 7-17, 19-21, 23-25, 27-29, 31-33, 37 and 38 as being dependent upon a rejected base claim. The Examiner has stated that the claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Since claims 7-17 depend from and incorporate all of the limitations of allowable claim 1, claims 19-21 depend from and incorporate all of the limitations of allowable claim 18, claims 23-25 depend from and incorporate all of the limitations of allowable claim 22, claims 27-29 depend from and incorporate all of the limitations of allowable claim 26, claims 31-33 depend from and incorporate all of the limitations of allowable claim 30, and claims 37 and 38 depend from and incorporate all of the limitations of allowable claim 34, claims 7-17, 19-21, 23-25, 27-29, 31-33, 37 and 38 are likewise allowable over the prior art cited by the Examiner.

All of the stated grounds of objection and rejection have been properly traversed and/or accommodated. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections and rejections. There being no other rejections or objections, Applicants respectfully request that the current application be allowed and passed to issue.

If the Examiner believes for any reason that personal communication will expedite prosecution of this application, I invite the Examiner to telephone me directly.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for this Amendment and Response, or credit any overpayment, to deposit account no. 50-0436.

Respectfully submitted,
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